

This listing of the claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently amended) A method of forming a seed layer comprising:
forming a non-continuous metal layer within a recess in a substrate;
forming an activating layer on ~~activating~~ the non-continuous metal layer and
at least one of a non-deposited region within the recess, wherein the activating layer
comprises a thickness less than about 300 angstroms; and
electrolessly depositing a seed layer on the activating layer ~~non-continuous~~
~~metal layer~~ and on the at least one non-deposited region within the recess.
2. (Original) The method of claim 1 wherein forming the recess comprises
forming a high aspect recess comprising an aspect ratio greater than about 3:1.
3. (Original) The method of claim 1 wherein forming the non-continuous metal
layer comprises forming a non-continuous layer of at least one of tantalum, tantalum
nitride, tantalum silicon nitride, tungsten, titanium, titanium tungsten, titanium
nitride, titanium silicon nitride or a combination thereof.
4. (Currently amended) The method of claim 1 wherein forming the activation
layer comprises activating the non-continuous metal layer and the at least one non-

deposited region within the recess ~~comprises forming an activation layer on the non-~~
~~continuous metal layer and on the at least one non-deposited region within the recess.~~

5. (Original) The method of claim 4 wherein activating the non-continuous
metal

layer and the at least one non-deposited region within the recess comprises
forming at least one of a palladium or platinum layer on the non-continuous metal
layer and the at least one non-deposited region within the recess.

6. (Original) The method of claim 1 further comprising forming a metal fill
layer on the seed layer.

7. (Original) The method of claim 6 further comprising polishing the metal fill
layer by utilizing a chemical mechanical polishing process.

8. (Original) The method of claim 6 wherein forming the metal fill layer
comprises forming a substantially void free metal fill layer.

9. (Currently amended) A method of forming a microelectronic structure
comprising:

forming a recess in a substrate;

forming a non-continuous metal layer within the recess;

forming an activating layer on ~~activating~~ the non-continuous metal layer and

at least one non-deposited region within the recess, wherein the activating layer comprises a thickness less than about 300 angstroms;

electrolessly depositing a seed layer on the activating layer ~~non-continuous metal layer~~ and on the at least one non-deposited region within the recess; and forming a metal fill layer over the seed layer.

10. (Original) The method of claim 9 wherein forming the recess comprises forming a high aspect recess comprising an aspect ratio greater than about 3:1.

11. (Original) The method of claim 9 wherein forming the non-continuous metal layer comprises forming a non-continuous layer of at least one of tantalum, tantalum nitride, tantalum silicon nitride, tungsten, titanium, titanium tungsten, titanium nitride, titanium silicon nitride or a combination thereof.

12. (Original) The method of claim 9 wherein electrolessly depositing the seed layer comprises electrolessly depositing a copper layer comprising a grain size of about 1 micron in diameter or greater.

13. (Original) The method of claim 9 wherein forming the metal fill layer comprises electroplating a metal fill layer.

14. (Original) The method of claim 9 wherein forming the metal fill layer comprises forming a substantially void free metal fill layer.

15. (Original) The method of claim 9 wherein forming the metal fill layer comprises electroplating a copper layer.